Rochester, N.Y.

**Girls drawn to single-gender technology classes at Fairport**

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Three middle school girls shuffle into class and sit side by side in the second row. They open up their individual laptops. Within seconds, 15 more female students file in, sit down and start discussing their project. Even before class begins and teacher Liz Brown gives the first instructions of the day, the students are working. Using Google SketchUp, the students design a three-dimensional home. The classroom noise never reaches above a murmur despite students working together.

The girls are among more than 50 students this year who participated in the first of a two-year single-gender technology program at three Fairport schools — Martha Brown, Johanna Perrin Middle School and Minerva DeLand, a ninth-grade school. Next school year, Fairport High School begins an all-girls architecture course.

Last year, boys made up 92 percent of Fairport high school tech classes. District officials were disturbed by the statistic and developed the single-gender program, which has thrived, quadrupling the number of girls enrolled in tech classes this year. District officials marvel at how a new school concept has taken hold. Among its advantages, the single-gender setting provides girls an avenue to success in technology without feeling intimidated or bullied by their male peers.

"In an all-girls class, you see them immediately get started in class, work faster and pay better attention," said Brown, Martha Brown technology teacher. "It's a special sight to see." About 540 public schools nationwide offer single-sex academic classes, according to the U.S. Department of Education. While doing his research, David Allyn, a special assignment administrator for Fairport schools, said he discovered no other Monroe County public school had a similar all-girl technology program. Single-sex public school classes have expanded recently in Buffalo and Syracuse.

The push continues for more women to enter engineering. The fields of aerospace, civil, computer science and mechanical engineering have less than 15 percent women. Women outnumber men in college, but are not always encouraged to enter male-dominated professions. Engineering jobs are being outsourced to foreign-trained professionals because the U.S. can't produce enough native computer analysts, programmers, Web designers, architects and scientists, according to the U.S. Bureau of Labor Statistics.

Leonard Sax, a national advocate of single-sex education who spoke at McQuaid Jesuit High School last year, doesn't claim that single gender education works for every child, but he said he believes it can be beneficial for some. "What if you think that your son or daughter might benefit from the all-boys or all-girls environment, but you don't have thousands of dollars a year to spend on private education for your child?" said Sax, founder of the National Association of Single Sex Public Education. "The best way to get girls, especially in middle school, profoundly excited about computer programming turns out to be profoundly different than how to get boys excited."

Especially in middle school, teachers and administrators also observe that boys and girls start noticing each other more in ways they didn't in fifth grade or even in high school. "In middle school, boys and girls become an incredible distraction to each other," said David Dunn, Martha Brown principal. "It's not even that middle school boys are smarter, because they're not. They're just more aggressive in the classroom than girls."

The students at Martha Brown divide their technology course into 21st-century learning and hands-on projects. The front of the classroom has a large projection screen where Brown teaches them three-dimensional designs, while the back half resembles a shop class where students recently built a car out of black pine.

Eighth-grader Katie Skolnick, 13, had only a slight interest in technology, but joined the class because of her friends. Now, the friendly classroom environment has left her wanting more. "I just find that I can get a lot of things done faster because everyone is actually working," she said.

During class, the girls offer suggestions on how to improve each other's designs, but that collaboration doesn't mean there isn't competition. Each student tried to make sure her designed house had unique features unparalleled by her peers. "Boys are always putting pressure on you, and in this class, I can do well, connect better to students and don't feel any pressure," said Taylor Samuel, 14, of Fairport.

Even in high school, the single-gender system flourishes. While middle school mandates students take some form of technology class, once in high school, girls often never get back into shop class. While this year 20 girls make up the one all-girl class, last year, a similar course had six girls scattered in five different courses.

The ninth-grade girls at Minerva DeLand walk into shop class and start making wooden toys. Splinters fly into the air as the wood skids through a saw machine. Globs of Elmer's glue drip onto countertops, the burnt smell of wood hovers in the air and dust flies as students sand rough surfaces even while the activity chips away at their painted nail polish. And they can't get enough of it. "This class is more interactive than most," said Sarah Bush, 14, of Perinton, ninth-grader at Minerva DeLand. "And because it is more free-flowing, it gives us a chance to do something creative."

Defying stereotypes of girls who like technology, the class is filled with cheerleaders, soccer and lacrosse players, dancers and students with varying academic aptitudes. "It is amazing how much faster girls get the information. In 27 years of teaching, I have never had an entire classroom hand in every assignment on time until I taught this all-girl class," said Dan Johnson, a Minerva DeLand technology teacher, who has taught in Fairport, Webster and the Rochester school districts. "They're smart and they just don't judge each other. A girl who might be struggling could ask a few questions in class without being ridiculed." While there are no plans to have all-male courses in Fairport, single-gender female classes will expand, including a high school fashion marketing class next school year.

After 40 minutes, the Martha Brown students designing dream homes log off Google SketchUp and head to their next class. One student leaned over to teacher Liz Brown and said she had so much fun she wanted to stay another period. "A comment like that makes me even more excited to be teaching the single gender course," said Brown.

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Excerpted from *Girls drawn to single-gender technology classes at Fairport | democratandchronicle.com | Democrat and Chronicle*

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